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Applying the Growth Identification and Facilitation Framework

The Case of Nigeria

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Abstract

This paper applies the Growth Identification and Facilitation Framework developed by Lin and Monga (2010) to Nigeria. It identifies as appropriate comparator countries China, India, Indonesia, and Vietnam, and selects a wide range of industries in which these comparator countries may be losing their comparative advantage and which may therefore lend themselves to targeted interventions of the government to fast-track growth. These industries include food processing, light manufacturing, suitcases, shoes, car parts, and petrochemicals. The paper also discusses binding constraints to growth in each of these value chains as well as mechanisms through which governance-related issues in the implementation of industrial policy could be addressed.

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Applying the Growth Identification and Facilitation Framework: The Case of Nigeria

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Applying the growth identification and facilitation framework to Nigeria

1. Nigeria faces a growing employment crisis. Notwithstanding sustained, high and broad-based growth in the non-oil economy, unemployment has not fallen materially since 1999. More importantly, youth unemployment has markedly risen over the same period. While the number of jobs seems to have grown in line with the labor force, most of these jobs have been created in informal family agriculture. Wage employment, however, has declined. Nigeria needs a strategy aimed at increasing the employment intensity and sustainability of its growth performance.

2. How to promote economic growth has been a topic for economic discourse and research for a long time. Modern economic growth is a process of continuous technological innovation, industrial upgrading and diversification, and of improvements in the various types of infrastructure and institutional arrangements that constitute the context for business development and wealth creation. While past theories have long emphasized that market mechanisms are essential to getting relative prices right and thereby facilitating an efficient allocation of factors, the growth experience in many countries shows that governments often play a crucial role in facilitating industrial transformation.

3. New Structural Economics[2] conceptualizes these aspects of growth by integrating some of the insights from the old structural economics, namely the need to take into account, on the one hand, structural features of developing economies in analyzing the process of economic development and, on the other hand, the role of the state in facilitating structural change in developing countries. The key innovation of the approach is that it considers structural differences between developed and developing countries to be endogenous to their endowment structure. With the economy's structure of factor endowment -- defined as the relative composition of natural resources, labor, human capital and physical capital – being given at each stage of development and different from one stage to another, the optimal industrial structure will be different at different stages of development. To move from one stage to another, the market requires industrial upgrading and corresponding improvements in hard and soft infrastructure.

4. The Growth Identification and Facilitation Framework (GIFF) operationalizes key insights of New Structural Economics by developing a methodology for identifying sectors where the country may have a latent comparative advantage and removing binding constraints to facilitate private firms' entry into those industries. The purpose of this paper is to apply the GIFF to Nigeria. The reason for choosing Nigeria is that, in addition to facing a growing employment crisis, Nigeria is also Africa's most populous country and a regional growth pole.[3]

[2] Lin (2009) : " New Structural Economics – A Framework for rethinking development."
[3] see also Global Development Horizons, 2011.

5. Following an overview of Nigeria's recent economic performance and its impact on employment, the paper describes the basic rationale underlying the GIF framework and its methodology. The third section discusses, based on a range of criteria proposed by the GIFF, which sectors or products would be compatible with Nigeria's latent comparative advantage and should therefore be promoted using industrial policy. The fourth section reviews the binding constraints to growth in each of these sectors and discusses specific interventions the government could undertake-- in collaboration with the private sector--in order to alleviate these constraints. In view of the fact that shortcomings in governance have in the past often undermined the effectiveness of policy interventions in Nigeria, this section also discusses how the measures could be implemented to ensure accountability and transparency.

I. Recent economic developments in Nigeria

6. Since 2001, Nigeria has had the longest period of sustained expansion of the non-oil economy since independence. Growth has occurred across all sectors of the economy and has been accelerating. While non-oil growth averaged about 3-4 percent in 1995-2000, it more than doubled to over 7 percent and rose to 8 to 9 percent in recent years. Even in spite of the current global financial crisis, growth of the non-oil economy remained above 8 percent in 2009 and 2010. While the oil economy contracted in recent years owing to unrest in the Niger Delta, since 2009, the contribution of the Niger Delta has improved as a result of positive effects of the amnesty on oil production (Table 1).

Table 1: Macroeconomic Aggregates, 2003 - 2009 (in percent)

	2003	2004	2005	2006	2007	2008	2009
Real GDP	10.2	10.5	6.5	6	6.4	6.00	7
Oil GDP	23.8	3.3	0.5	-4.4	-4.5	-6.2	0.5
Non-Oil GDP	5.8	13.2	8.6	9.4	9.5	9	8.3
Inflation Rate (CPI annual average)	14	15	17.9	8	5.4	11.6	12.5

7. Moreover, over the last five years, the growth of Nigeria's non-oil economy has been superior to that of most oil-exporting and non-oil exporting countries in Sub-Saharan Africa (Table 2).

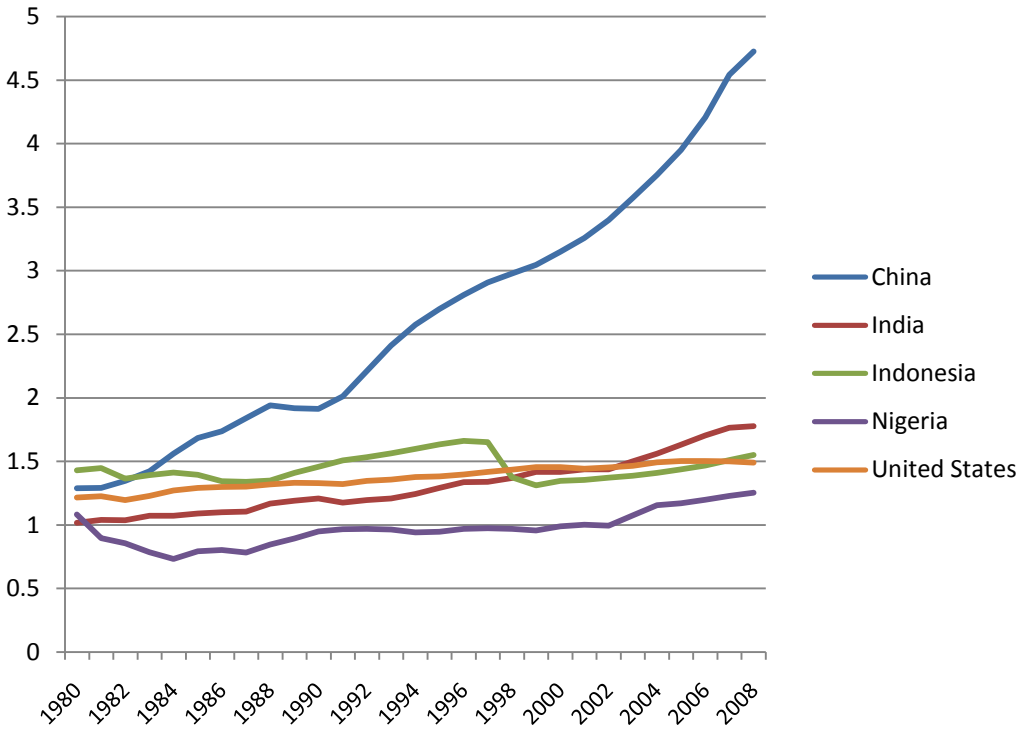
Table 2: Real Non - Oil GDP Growth, 2003 - 2009 (percent per annum)

	2003	2004	2005	2006	2007	2008	2009
Nigeria	5.8	13.2	8.6	9.4	9.5	9	8.3
Oil producers							
Angola	10.3	9	14.1	27.5	20.1	14.7	8.1
Cameroon	4.9	4.9	3.2	2.9	4.1	3.2	3
Gabon	0.8	2.3	4.3	4.9	6.2	3	2.3
Chad	6	-0.5	11	4.7	3.1	3.2	-0.5
Congo, Rep.	5.4	5	5.4	5.9	6.6	5.4	3.9
Equatorial Guinea	3.7	15.4	25.8	29.8	47.2	18.1	27.6
Non-oil producers							
Ghana	5.2	5.6	5.9	6.4	6.3	7.3	3.5
Kenya	2.9	5.1	5.7	6.1	6.9	2.1	3.8
Tanzania	5.7	6.7	7.4	6.7	7.1	7.4	6
South Africa	3.1	4.8	5.1	5	4.8	3.7	-1.8

Source: WDI/Various IMF reports.

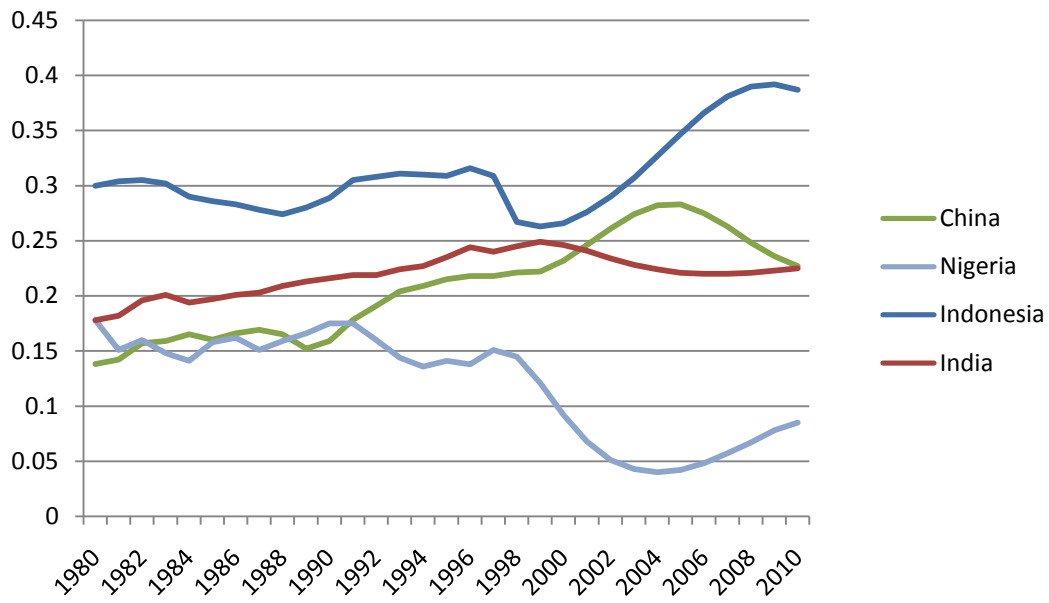
8. An analysis of the sources of growth shows that, while TFP seems to have improved significantly since 2000, relative to the US it has been declining and has only recently improved (Figures 1 and 2).

Figure 1: Total Factor Productivity, base year 1960 = 1



Source: Bosworth & Collins, 2003.

Figure 2: Total Factor Productivity, relative to US



Source: UNIDO, World Productivity Database.

9. The growth of the non-oil economy was largely driven by the agriculture sector, which contributed on average more than 50 percent (Table 3).

10. The contribution of agriculture was followed by that of the wholesale and retail sector (about 20 percent), the manufacturing and financial sectors (4-5 percent), and the telecommunications sector (about 3-4 percent).

Table 3: Contribution to Non - Oil GDP (percent)

	2004	2005	2006	2007	2008	2009
Agriculture	55.3	54.5	53.5	52.3	51.1	49.9
Solid Mineral	0.35	0.36	0.36	0.37	0.44	0.40
Manufacturing	4.97	5.01	5.01	5.02	5.01	4.99
Telecommunication	1.61	1.92	2.35	2.87	3.53	4.38
Finance & Insurance	5.50	5.21	5.00	4.80	4.61	4.43
Wholesale and Retail Trade	17.40	18.19	19.16	20.16	21.1	21.71
Building and Construction	1.95	2.01	2.08	2.14	2.22	2.30
Others	13.12	12.98	12.72	12.47	12.25	12.06

Source: WDI/IMF Reports

11. Since 2001, changes in the services sector have led a structural change in Nigeria's economy, manifested in substantial growth of the telecommunications, transportation, hotel and restaurants, construction and real estate, and financial sectors.

12. The fastest-growing sector has been telecommunications (at an average rate of over 30 percent), followed by the wholesale and retail sectors (about 15 percent) and construction (about 13 percent). Solid minerals grew by over 10 percent on average and manufacturing by about 8-9 percent. Agriculture grew by 6-7 percent on average, the strongest sustained growth performance in more than a decade.

13. Notwithstanding Nigeria's strong economic performance over the past 10 years, its export and production structure has shown little diversification. Nigeria's exports are concentrated in oil and gas (98 percent), while the structure of the non-oil economy is dominated by the agriculture, wholesale, and retail sectors that serve the domestic market.

How have employment and incomes responded to this strong growth performance?

Table 4 shows how the labor force has evolved since 1999.

Table 4: GHS 1999 - 2006 - Sample Population aged 15 - 65 not in Schooling (in percent, weighted)

Labor Force Status	1999	2004	2006
Not in the Labor Force	25.3	23.0	25.2
In the Labor Force	74.7	77.0	74.8
Unemployment Status	**1999**	**2004**	**2006**
Employed	97.8	97.0	97.4
Unemployed	2.2	3.0	2.6

Source: Francis Teal / Luke Haywood NLSS 2003-2004 and GHS 1999-2004

14. A key feature of Nigeria's working-age population is the high share (approximately one-fourth) of the population that is not in the labor force. As in other African countries, formal unemployment (measured as job seekers who cannot find a job) is extremely low. The vast majority of people outside the labor force consist of individuals who are either discouraged job seekers or who have not embarked upon a job search, as they do not consider the prospects to be promising. The share of people outside the labor force is a more suitable indicator of unemployment than the official unemployment rate, which consists of individuals that are looking for, but are unable to find employment. Nonetheless, actual unemployment will be less than 25 percent given that there are individuals who are not in the labor force that are genuinely not interested in work. However, given the pervasive poverty in Nigeria, that figure is not likely to be high.

15. Table 4 shows that in spite of the high growth performance, the share of the population that is not in the labor force has remained broadly unchanged. That means that the number of jobs has risen broadly in line with the labor force and that unemployment has remained basically unchanged.

16. Table 5 shows the evolution of employment broken down by family agriculture, non-agriculture self-employed (i.e., mostly urban) and wage employment.

Table 5: Types of Employment as a Percentage of the Sample Population GHS 1999 - 2006 (in percent, weighted)

	1999	2004	2006
Family agriculture	30.8	36.6	37.8
Non-agriculture self-employed	24.1	25.8	22.9
Non-agriculture unpaid family work	0	0.08	0.06
Wage employment	15.0	10.4	10.0
Apprenticeship	2.1	1.1	1.9
Unemployed	1.7	2.4	1.9
Not in the labor force	26.4	23.7	25.5

Source: Francis Teal / Luke Haywood NLSS 2003-2004 and GHS 1999-2004

17. From 1999 to 2006, the most important structural changes that have occurred in Nigeria's labor force have been a shift *into* agriculture employment and *out of* wage employment: the proportion of the sample population aged 15 to 65 (excluding those in full-time education) with wage jobs *declined* over this period (from 15 percent in 1999 to 10 percent in 2006). The same is also true for those classified as non-agriculture self-employed (their share of the population fell from 24 to 22.9 percent). The category that saw a major increase in this share of the population was family agriculture, which rose from 30.8 to 37.8 percent.[4]

18. Table 6 provides further insights into the development of wage employment since 1999: Wage employment in parastatals, ministries and public companies has declined, while employment in the private sector and others (including NGOs, international organizations and associations) has risen.

[4] It is important to note that this finding does not necessarily imply that people in wage employment moved into family agriculture. It could also mean that those who previously reported no activity (i.e. outside the labor force) but were at least temporarily involved in agriculture, became engaged in agriculture to an extent that they now reported employment in family agriculture. That means they moved from under-employment to employment. Rodrik (2010) finds evidence that labor moved from the wholesale/retail sectors (which have a reasonably high productivity) to agriculture.

Table 6: Types of Wage Employment GHS 1999 - 2006 (in percent, weighted)

	1999	2004	2006
Other	22.8	25.2	29.6
Parastatals and Ministries	48.6	42.2	45.6
Private companies	17.0	20.5	18.0
Public companies	11.6	12.0	6.9

Source: Francis Teal / Luke Haywood NLSS 2003-2004 and GHS 1999-2004

19. The decline of wage employment reflects three developments: (i) the retrenchment of civil servants and the privatization of many parastatals led to a sharp decline in public service employment, which has long dominated employment in the formal sector and continues to represent the largest share of wage employment; (ii) many private industries with large wage employment, notably the textile industry, have been in decline for a number of years and have shed a considerable part of their work force; and (iii) sectors of the economy that have grown quickly, such as wholesale/retail, construction and agriculture, have been, to a significant extent, in the informal sector, while those in the formal sector, e.g., the financial services and hospitality industries, are either not very employment intensive or added labor from a very low base, failing to make a significant difference in the growth of wage employment.

Two features stand out:

- Among the young, the share of family agriculture almost doubled from 1999-2006.
- By 2006, the share of young people outside the labor force in the urban areas had appreciably increased. A more detailed review of the share of the people outside the labor force suggests that most of them consist of women engaged in household work and men who have never had any employment experience.

20. This picture generally supports the conclusion that youth unemployment has been on the rise since 1999, an alarming trend in view of the strong growth performance in recent years.

21. The pattern of growth in Nigeria and its relation to the evolution of Nigeria's labor market can be described as follows:

- Nigeria's strong growth in recent years has been dominated by the agriculture sector. In the labor market this has been reflected in a shift of employment into family agriculture. The considerable growth of employment in the agriculture sector is consistent with the absence of improvements in agricultural productivity.

- Creation of contractual wage jobs in the rapidly growing sectors of the economy was unable to compensate for the loss of wage jobs in the public sector, parastatals and ministries, leading to a decline in wage employment.

22. With the share of population outside the labor force unchanged for the population as a whole and rising for the lowest age bracket, Nigeria's growth performance has clearly not responded to the aspirations of its population.

23. Nigeria's strong growth performance reflected primarily two factors: (i) sound macroeconomic policies that created a more favorable environment for private investment, and (ii) sectoral policies, such as the banking consolidation exercise that directly boosted growth in specific sectors of the economy. Both macroeconomic and structural policies contributed to confidence in a new era in the Nigerian economy and thus promoted investment, substantially fueled by foreign direct investment and remittances.

24. However, this investment was more focused on capital-intensive than employment-intensive industries. Investment occurred primarily in the oil and gas and the telecommunications industries, where returns were particularly high. Hence, few productivity improvements occurred in sectors that are employment-intensive and consistent with the comparative advantage of the economy, such as the labor-intensive manufacturing sector. As a result, the infrastructure constraints became more binding in these sectors of the economy, limiting improvements in their productivity and competitiveness and hence their ability to generate employment. A forward-looking growth strategy needs to focus on improving productivity in the employment-intensive sectors of the economy.

25. The next section identifies the sectors that Nigeria should target based on the methodology proposed by the Growth Identification and Facilitation Framework.

II. The Growth Identification and Facilitation framework

26. New Structural Economics notes that modern economic growth is a process of continuous technological innovation, industrial upgrading and diversification, and improvements in the various types of infrastructure and institutional arrangements that constitute the context of business development and wealth creation. At any given point in time, the structure of a country's endowment, that is, the relative abundance of factors that the country possesses, determines relative factor prices and thus the optimal industrial structure. A low-income country with abundant labor or natural resources and scarce capital will have comparative advantage and be competitive in labor-intensive or resource-intensive industries. Hence, the optimal industrial structure in a country which will make the country most competitive is endogenously determined by its endowment structure. For a developing country to reach the income level of advanced countries, it needs to upgrade its industrial structure to the same relative capital-intensity of the advanced countries.

27. A country's endowment structure is not static, but will depend on the rate of capital accumulation and technological progress. The change in relative prices associated with these changes will affect the type of industries in which the country has a latent comparative advantage and hence the optimal industrial structure, given that, in order to be competitive, the new industry needs to be consistent with a country's latent comparative advantage.[5] Of particular importance to the latent comparative advantage is the wage level. By imitating or licensing to obtain technology—a process that is less expensive than inventing the technology on their own—low-income countries will be able to produce the same commodities at a significantly lower cost than developed countries provided the enabling conditions have been created. That way the country can exploit the latecomer advantages by developing matured industries in dynamically growing, more advanced countries with endowment structures similar to theirs. By following carefully selected lead countries, latecomers can emulate the leader-follower, flying-geese pattern that has served well all successful economies since the 18th century.

28. The process of upgrading the industrial structure to a higher level consistent with the factor endowment cannot rely solely on the market mechanism. For example, starting a new industry may be difficult because of the lack of complementary inputs or adequate infrastructure for the new industry even if the targeted industry is consistent with the economy's comparative advantage. Private firms will not be able to internalize those investments in their decision to upgrade or diversify. Therefore, the government has an important role in providing or coordinating investments in necessary infrastructure and complementary inputs.

[5]Lin and Monga: " Growth Identification and Facilitation--The Role of the State in the Dynamics of Structural Change", World Bank Policy Research Working Paper.

29. In addition, innovation which underlies the industrial upgrading and diversification process is a risky process, as it presents a first-mover problem. Both failure and success of a first mover create externalities. For example, firms that are first movers pay the cost of failure and produce valuable information for other firms. At the same time, when first movers succeed, their experience also provides valuable information to other market participants about the type of industries that can be profitable in the specific country. However, if new firms enter on a large scale this may largely eliminate the possible rents that the first mover may enjoy. In a developed country, a successful first mover can in general be rewarded with a patent and enjoy the rent created by a matured industry. However, in a developing country, a new patent may not be available, as the industry may already be located within the global industrial frontier. Therefore, the first mover will not be able to obtain a patent for its entry into a new industry in its economy, and, as a result, some form of direct support by the government to pioneer firms may be justifiable.

30. The GIFF proposes a new approach to help identify industries where the economies may have a latent comparative advantage and remove binding constraints to facilitate private firms' entry into those industries, or facilitate industries that are already active in the country to grow fast. In this context, the GIFF argues that picking winners is inevitable because the binding constraints may be sector specific and removing them may not be possible for the private sector alone. Therefore the main issue is to minimize the error margin of picking the wrong industry. The key risk in this regard is that countries target industries that are too advanced and far beyond the latent comparative advantage or to target industries in which the country has already lost its comparative advantage.

31. The GIFF proposes a six-step approach to growth identification and facilitation. Three of these steps aim at the selection of sectors. After the sectors are selected, value-chain analyses can be used to identify the binding constraints for private firms' entry and growth in those sectors (see Box 1).

- The first step consists of identifying tradable goods and services that have been growing dynamically for about 20 years in fast-growing countries with similar endowment structures that have a per capita GDP about 100 to 300 percent higher than their own. In many cases, given that wages tend to rise in the growth process, a fast-growing country that has produced goods and services for about 20 years may begin to lose its comparative advantage in this sector.[6][7] In addition, Nigeria could domestically produce

[6] Countries with a similar endowment structure should have a similar comparative advantage. The country with a lower wage level than the comparator country is hence able to produce a commodity at a lower cost than its competitor.

[7] Within the same industry, the complexity of the associated technology may differ widely; as a result, in some specific products a country may have comparative advantage and others not. For example, when Korea entered the memory chip industry in the 1980s, Japan's memory chip industries were still expanding. What made Korea's entry successful was that it started with simple, technologically matured chips which Japan had produced 10 years

simple manufacturing goods which are labor-intensive, have limited economies of scale, and require only small investments, and are imported. This step also allows the identification of industries that are new to the country, but may be good business opportunities for Nigeria

- Second, among the industries on the list, the government may give priority to those in which some domestic private firms have already entered spontaneously, and try to identify: (i) the obstacles that are preventing these firms from upgrading the quality of their products; or (ii) the barriers that limit entry to those industries by other private firms. For such industries, the government could also adopt specific measures to encourage foreign direct investment in the higher-income country to invest in these industries.

- Third, in addition to the industries identified on the list of opportunities for tradable goods and services in step 1, developing country governments should pay close attention to successful self-discoveries by private enterprises and provide support to scale up those industries.

The application of this methodology to Nigeria is discussed below.

ago. Also, an industry can be divided into different segments with different capital-intensity. For example, the IT industry can be divided, according to capital intensity, R&D, chips, spare parts, and assembly. The lower-income countries can enter the industry starting from labor-intensive assembly.

Box 1: Applying the GIFF – Comparative Value Chain Analysis

A forthcoming report by the World Bank on Light Manufacturing in Africa implements an innovative form of value chain analysis to both determine the competitiveness of a sector as well as assist governments and the private sector in identifying the constraints which most impact the cost competitiveness of domestically produced products on the global market.

In the usual value-chain analysis, the advantages, bottlenecks and policy issues would be analyzed within the country of study with some comparison between sectors within the economy. In the comparative approach, however, China and Vietnam are being chosen as benchmark countries in order to compare the cost competitiveness of African production of particular products, chosen to be as like-for-like as possible.

After applying the GIFF to arrive at several sub-sectors which could potentially be successfully produced in SSA (Ethiopia, Tanzania and Zambia were the sample countries), in-depth value chain analyses were conducted for particular products in each of those sub-sectors in order to gain a representative view of the competitiveness and constraints of the sub-sector. The analysis included a quantitative breakdown of the proportion and cost of inputs, efficiency input use, logistic costs, labor productivity, production wastage and efficiency etc. This data was gathered from a reasonable sample of firms in all five countries producing similar products in each of the five identified sub-sectors. Each component which impacts the cost and competitiveness of the firms was compared between China, Vietnam and SSA. The results were conclusive in identifying the cost elements which vary significantly between East Asia and SSA, thereby identifying the priority areas for intervention. The results also screened out those sectors where the country does not have comparative advantage by calculating the domestic resource costs.

For Nigeria, value chain analyses have been conducted in recent years for several key sectors which have been valuable in highlighting the constraints and opportunities in the sectors studied. However, the new approach proposed in this paper is to use the GIF framework to identify sectors where Nigeria may have some comparative advantage, latent or revealed. A comparative value chain analysis could then be undertaken in those identified sectors which will provide rigorous evidence and support for a prioritized program by government and private sector to overcome key constraints in targeted sectors. For example, the comparative value chain provides some more conclusive evidence on the wage difference in specific sectors as well as the difference in labor productivity in those sectors. That way, conclusions can be drawn on both the poverty-reducing employment effect of expansion in a sector, as well as the labor cost advantage (or disadvantage) which can be a crucial aspect in determining competitiveness of a sector.

III. Selecting sectors

Selecting a country with a per capita income 100-300 percent above Nigeria's

32. Table 7 shows a list of countries that have a per-capita GDP of 100 to 300 percent of that of Nigeria. Removing slowly-growing countries, i.e., countries growing at less than 6 percent per year, leaves the following countries: Indonesia, China, Vietnam and India.

Table 7: GDP per capita, PPP (constant 2005 international $) in 2009

	GDP per capita	Percent of Nigeria
Nigeria	2001	100%
Vietnam	2682	134%
India	2970	148%
Philippines	3216	161%
Indonesia	3813	191%
Morocco	4081	204%
Paraguay	4107	205%
Egypt	5151	257%
China	6200	310%
Tunisia	7512	375%

33. Using the criterion of factor endowment, among these countries Indonesia would stand out as the country with the greatest similarity with Nigeria because it is a natural resource-rich country and a former member of OPEC, but also specializes in labor-intensive production. Indonesia has effectively used both its natural resources as well its abundant labor supply to develop industries that correspond to its latent comparative advantage. As discussed in a blog by Justin Lin (March 2011), a resource-rich, labor-abundant country can use both resource-rich and labor-abundant countries as comparators.[8]

34. While not a resource-rich country, Vietnam's high growth rate makes it an appropriate comparator, especially in view of its labor–intensive economy. Its strong growth performance and consequent rise in labor costs could also quickly erode Vietnam's cost advantage in certain labor-intensive industries.

35. The other country that lends itself as a comparator is China. China has a per capita income that is about 300 percent higher than that of Nigeria and is not a natural resource rich

[8]The similarities been Nigeria and Indonesia had earlier been recognized in a World Bank publication which reviewed the economic performance of the two countries over the period 1960-85.

country. However, given its fast growth, large population size and domestic market, as well as fast ascent on the technological value-added ladder, its production structure may be suited for imitation given that it may be in the process of losing its cost advantage in some of the industries that have in the past driven its growth performance. This is especially true if Nigeria can use the rent from natural resources to improve its infrastructure and education.

36. A further comparator country is India. While India has not consistently followed its comparative advantage of abundant unskilled labor, the availability of skilled labor has been successfully used for several new sectors, such as call centers. Hence in some areas, India's production structure has been in line with its latent comparative advantage.

Which commodities do these countries export?

37. This section identifies industries in these comparator countries where production is labor intensive or requires natural resources, and provides brief comments on Nigeria's potential in these industries.

Table 8: Identifying Sectors for Growth – Key exports of China, India, Vietnam and Indonesia

China	Vietnam	India	Indonesia	Nigeria potential
			palm oil	Large domestic production. High potential established in detailed value chain analysis. However, low export value of USD 300,000 in 2009.
rubber manufactures			crude rubber	Tire industry closed several years ago as it could not compete with imports. Natural rubber is Nigeria's 10th largest export. Large rubber plant exists in Calabar, Cross River.
apparel & clothing accessories; textile yarn, fabrics etc.; dyeing & tanning	apparel & clothing accessories; textile yarn, fabrics etc.	apparel & clothing accessories; textile yarn, fabrics etc.	apparel & clothing accessories; textile yarn, fabrics etc.	Textiles is a failing industry primarily because competitiveness with imports is undermined by high costs of power in Nigeria, as well as a small wage differential to comparator countries which produce at large volumes.

footwear; travel goods, handbags; leather manufactures	footwear			Leather – already private sector momentum, goat/kidskin leather is the 4th largest export. Industry already in place in Kano that needs better enabling conditions.
Telecommunications & sound recording equipment; photographic apparatus		Telecommunications & sound recording equipment	Telecommunications & sound recording equipment	Since December 2010, two operators have begun TV assembly in Lagos on CKD basis. Large potential for scaling up exists, provided land is being made available.
Office machines & Automatic data projectors	Electronic integrated circuits, telecoms.		Printed circuits, electronically integrated circuits, insulated wire and optical fiber	IT –Knock-down of computers is successfully taking place.
manufactured fertilizers				Indigenous fertilizer plants exist and are growing fast; Nigeria has refineries and fertilizer plants, but requires enabling conditions, such as the removal of the petroleum subsidy. Also, production of petrochemicals needs to match with specific type of refining capacity.
Fish, crustaceans prepared	Fish, crustaceans prepared		Fish, crustaceans prepared	Food & beverages: booming sector oriented to the domestic market; Cocoa beans are 3rd largest export; frozen crustaceans 5th largest export.
Vegetables & Fruit	Cereals & cereal preparations; coffee, tea, cocoa, spices manufactured	Cereals & cereal preparations; vegetables and fruit	Fixed vegetable oils and fats; coffee, tea, cocoa, spices manufactured	Both already active in Nigeria; to scale up it requires enabling conditions, especially power and a cold chain.
road vehicles		road vehicles; other transport equipment		Onitsha cluster in Anambra state focuses on car parts; Motorcycles and tractors are assembled in a knock-down assembly already.
furniture and parts thereof; cork and wood manufactures	Furniture and parts thereof			Furniture industry active in Nigeria and rapidly growing.
Paper, paperboard etc.			Paper, paperboard etc.	Already active and growing. Logistical support could help accelerate growth.

medicinal and pharmaceutical products		medicinal and pharmaceutical products		Industry established; but fragmented. Mergers could help reduce cost.
Machinery - electrical, metalworking or power-generating	Machinery - electrical, industrial	Machinery - electrical, general industrial, power-generating	electrical machinery	Metal industry in place; but too small and scattered to be cost effective. Scaling up could be facilitated through creation of clusters.
Organic chemicals; chemical materials & products; artificial resins, plastic materials; inorganic chemicals		organic chemicals		Organic chemicals industry could benefit from abundant supply of raw materials; however, petroleum subsidy is major distortion blocking larger foreign direct investment.

Imports of labor-intensive manufactured goods have limited economies of scale, and require only small investments

38. A review of imports of labor-intensive manufactured goods with limited economies of scale shows the following commodities (at the 4-digit SITC level).

Table 9: Top Nigeria Imports 2010

Product (4-digit)	2010 in 1000 USD	pct
Cereals and cereal preparations	863,917	10.7%
Telecommunications & sound recording	330,136	4.1%
Fish,crustaceans,mollucs,preparation	276,152	3.4%
Other transport equipment[9]	255,846	3.2%
Medicinal and pharmaceutical products	241,312	3.0%
Manufactures of metal	214,157	2.7%
Artif.resins,plastic mat.,cellulose	151,868	1.9%
Essential oils & perfume material	104,932	1.3%
Professional,scientific & controlling equipment	101,065	1.3%
Dairy products and birds'eggs	99,125	1.2%
Miscellaneous manufactured articles	98,169	1.2%
Rubber manufactures,n.e.s.	96,489	1.2%
Paper,paperboard,articleof paper	91,269	1.1%
Textile yarn,fabrics,made-upart.	82,120	1.0%
Beverages	58,480	0.7%

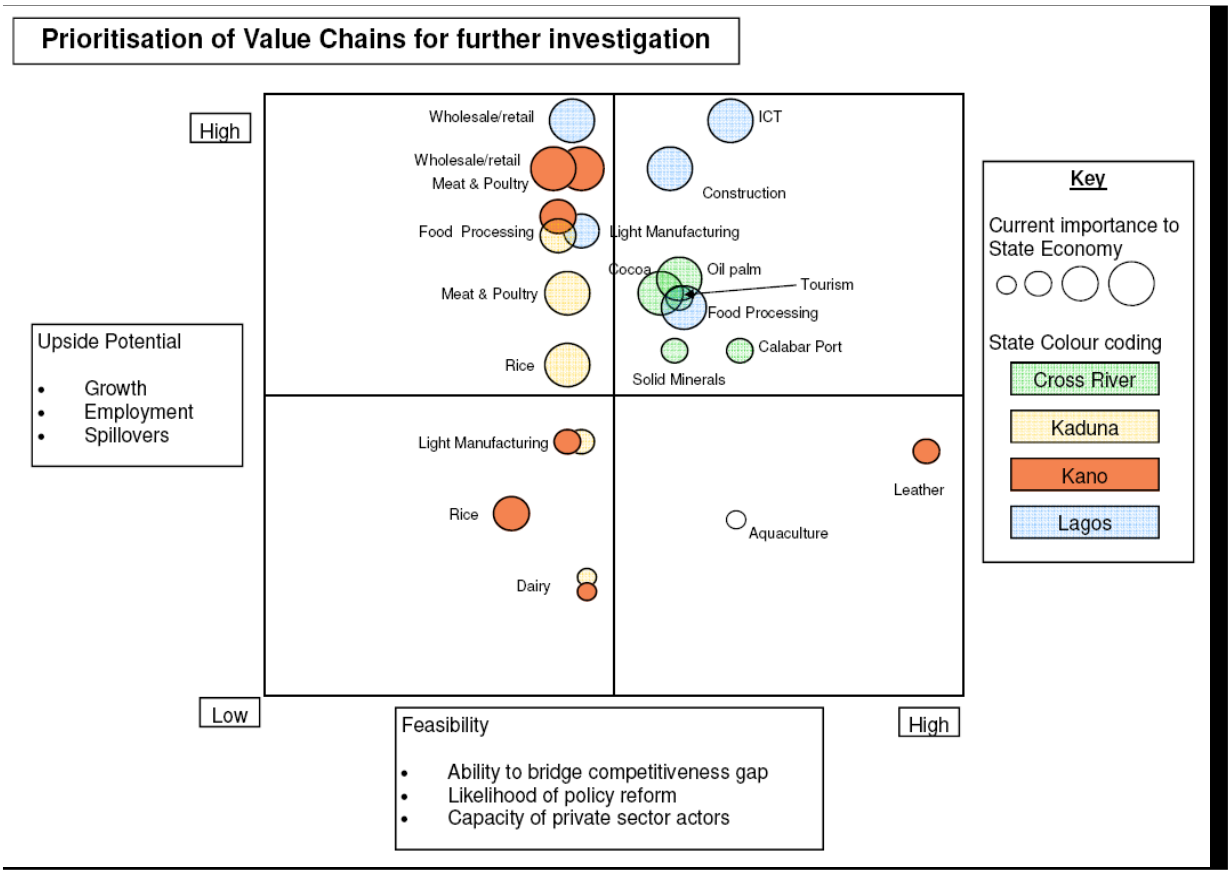
Source: COMTRADE database, 4-digit STIC Revision 2.

[9] Since transport equipment may be protected by patents, Nigeria could start by producing generic products.

Industries where the private sector is already active and where successful self-discovery has taken place

39. A third criterion for selection is to choose sectors in which Nigeria's private sector has become increasingly active and where successful self-discovery has already taken place, such as ICT, light manufacturing, food processing, wholesale and retail, construction and car parts, meat and poultry, oil palm, and cocoa. None of these industries currently produces for export. However, all of them have significant employment and growth potential and could be upgraded for exports.

40. The chart below highlights how the growth and employment potential of a sector may differ on a regional or geographical basis. For example, rice production has a lower employment and growth potential in Kano than in Kaduna. And the wholesale and retail sector has greater growth potential in Lagos, given the very large domestic market, than in Kano, where the market is smaller. Such detailed regional analysis is very important, given the great disparity in Nigeria.



Source: "Putting Nigeria to Work – A Strategy for Employment and Growth." World Bank, 2010.

41. In addition to these sectors, there are a number in which successful self-discovery has already taken place. For example, production of suitcases has recently successfully started and is expanding rapidly. At this stage, 60 percent of the required parts are being produced domestically, which has allowed for the unit cost to fall significantly; also about 50 percent of the domestic demand is being met through domestically-produced suitcases. A further area of successful self-discovery is TV assembly, which began as recently as December 2010. Both areas of production could be further rapidly expanded, including for exports, if the government provided assistance toward scaling up, e.g., through better access to finance.

What are the sectors in which Nigeria has a potential comparative advantage based on this analysis?

42. The section above uses three different criteria to identify sectors with high growth and employment potential that could be the subject of targeted interventions. First is the identification of dynamically growing tradable industries in fast growing countries with similar factor endowment and a per capita income 100 to 300 percent above that of Nigeria. Second is the review of Nigeria's imports to identify sectors that require only small investments and have limited economies of scale and could therefore be manufactured domestically. Third is the identification of domestic sectors where successful self-discovery has already taken place or that are already growing fast, but have a high employment impact and could grow faster.

The application of the first criterion yields the following sectors:

- Seven sectors emerge quite clearly for further analysis, as they represent industries in countries with a similar endowment structure: (i) footwear, including sports shoes; (ii) textiles; (iii) TV recorders; (iv) aquaculture; (v) motor vehicle parts (vi) vegetable oil; and (vii) fertilizers. Additional sectors are (viii) motorcycles; (ix) meat, meat products, and oil seeds; (x) fertilizers, petroleum products; (xi) leather; (xii) travel goods; (xiii) office machines; (xiv) pharmaceutical products; and (xv) organic chemicals.

Based on the second criterion, the following sectors would be prioritized:

- (i) Vehicles parts; (ii) color TV receivers; (iii) tires; and (iv) metal manufacture.

43. The third criterion, which focuses on sectors that are already growing fast, yields a list of target sectors that is slightly different from that identified through the first two criteria:

- Light manufacturing, food processing, meat and poultry, palm oil and rice, telecommunications, leather, wholesale and retail, and construction.

44. Nigeria is a country rich in natural resources, in particular oil and gas, but also solid minerals. Industries associated with these natural resources, in particular refined petroleum

products, petrochemicals, cosmetics and plastics, are currently not particularly active n Nigeria. However, given that they are imported in large quantities, and raw materials are available in abundance, they should be subject to a detailed value chain analysis aimed at assessing whether they can be produced at a comparative advantage in Nigeria.

45. How should the targeted sectors be selected from this list? The key criteria will be the upside potential of the sector in terms of growth and employment creation, as well as the feasibility of growth in terms of private sector capability and the public sector regulatory framework. These questions can ultimately be answered only based on detailed value chain analysis, along the lines of the methodology described in Box 1. However, as a first approximation, the list of potential target industries can be narrowed down further by applying a set of pre-screening criteria developed in the context of the forthcoming report on Light Manufacturing in Africa.

46. First, sectors with very high capital requirements and only small domestic markets should be eliminated, given that Nigeria is not a capital abundant country and initially success will be in catering to the large domestic market. Second, goods should ideally be produced by small and medium-size enterprises in the comparator countries, given that large enterprises are currently not prevalent in Nigeria. However, to the extent that Nigeria's business environment could be made conducive to attracting large-scale foreign direct investment, the goods could also be produced by large companies in comparator countries. Third, a supply chain should exist for each product in the domestic market. Fourth, raw materials are available in the domestic market or could be easily imported. And fifth, labor skills should be easily transferable.

47. The table below shows whether the pre-selected sectors meet the criteria: Wholesale/retail and construction sectors have not been included, as they are not sectors that would be imitated from other countries, but may still benefit from targeted interventions to make them more responsive to higher demand and more employment-intensive.

Table 10: Criteria for screening potential sub-sectors

Product groups	**Criteria 1**: production has low capital requirements and there is a significant domestic market	**Criteria 2**: production in comparator countries is by small – and medium-size enterprises	**Criteria 3**: There is some factor endowment in Nigeria - supply chain exists in the domestic market (domestic or imported raw materials); labor skills should be easily transferable.
Footwear, including sports shoes Travel bags	Yes	Yes	Leather supply chain exists; however, PVC required for sports shoes does not exist. Leather shoes and travel bags are already being manufactured and see strong growth.
TV electronics	Yes	In some cases	Raw materials can be easily imported. Not a high-skills type of production.
Tires and motor vehicle parts	Yes	Yes	Rubber and associated supply chain exists. International companies were active in Nigeria.
Vegetable oil, aquaculture, palm oil and rice; food processing, meat and poultry.	Yes	Yes	Yes
Motorcycles and tractors	Yes	Yes	Yes
Fertilizers, petrochemicals, organical chemicals	Yes	No	Nigeria is abundant in oil and gas. Labor skills are transferable.
Light manufacturing	Yes	Yes	Yes. Domestic vibrant industry with relevant skills already in place.
Leather	Yes	Yes	Yes
Pharmaceuticals	Yes	Yes	Yes
Paper board	Yes	Yes	Yes

48. Most of these sectors meet the pre-screening criteria, i.e., they have some upside potential for growth and meet feasibility criteria. A notable exception is sportswear—unavailability of PVC in the domestic market creates a comparative disadvantage and has already resulted in the closure of domestic production. Its competitiveness may depend on the establishment of a domestic petrochemical industry. Also, in the comparator countries, fertilizer and petrochemical production as well as TV production may not take place in small or medium-size enterprises; however, targeted foreign direct investment may be able to attract investments to establish larger firms, including through joint ventures, provided enabling conditions have been put in place.

49. In a second step, Nigeria's basic wage competitiveness in these sectors needs to be reviewed to determine whether that would allow Nigeria to reap the advantage of backwardness.

50. The table below summarizes wage data for China, Vietnam and Nigeria on a sectoral basis.

Table 11: Average wage (incl. benefits) by industry (USD)

	skilled labor					unskilled labor				
Sector	**Nigeria**	**Ethiopia (ICA)**	**Ethiopia**	**Vietnam**	**China**	**Nigeria**	**Ethiopia (ICA)**	**Ethiopia**	**Vietnam**	**China**
food	135	82	89-141	181-363	398-442	87	45	26-52	78-207	192-236
Garments	85	82	37-185	119-181	331-370	54	48	26-48	78-130	237-296
textiles	120	71				71	20			
machinery & equipment	163					125				
chemicals	212					127				
electronics	119					79				
non-metallic minerals	106					66				
wood, wood products & furn	102	151	81-119	181-259	393-442	67	35	37-52	85-135	206-251
metal & metal products	107		181	168-233	265-369	82		89	117-142	192-265
other manufacturing	130	154				87	67			

Source: Nigeria - Productivity and Investment Climate Survey, 2009 and Ethiopia Investment Climate Survey, Manufacturing 2006 (values reported are mean over sample); Others - Light Manufacturing in Africa, Vol II (values reported are the range reported by sample firms)

51. These data confirm Nigeria's relative cost advantage in cheap labor in the industries identified above.

IV. How can growth in the selected value chains be promoted?

52. In addition to proposing the above methodology to identify target sectors, the GIFF also identifies a number of steps to encourage growth in these targeted sectors. As discussed above, the government can try to identify the obstacles that are preventing these firms from upgrading the quality of their products or the barriers that limit entry to those industries through value chain analysis or the Growth Diagnostic studies suggested by Hausmann, Rodrik and Velasco. In addition, the government can adopt specific measures to encourage firms in the higher-income countries identified in the first step to invest in these industries. Moreover, in developing countries with poor infrastructure and an unfriendly business environment, the government can invest in industrial parks or export processing zones. Such industrial parks or EPZs typically provide conditions that are specifically targeted at certain sectors or industries, e.g., IT or light manufacturing, and are often built around already existing industry clusters. Lastly, the government can also provide limited incentives to domestic pioneer firms or foreign investors that work within the list of industries identified in step 1 in order to compensate for the non-rival public knowledge created by their investments. These steps may include corporate income tax holidays, directed tax credits, or priority access to foreign reserves to import key equipment. In the literature, the former type of intervention is referred to as soft and the latter as hard industrial policy.

53. The section below discusses key constraints in the selected value chains and what specifically could be done about it in the Nigerian context. Available value chain studies provide an analysis of the binding constraints to growth in a number of these value chains.[10] The binding constraints can be broadly categorized in 5 categories: (i) physical infrastructure, in particular lack of power and roads; (ii) business environment (cumbersome procedures); (iii) lack of access to finance; (iv) lack of a technical and vocational education system that corresponds to the needs of the market; and (v) restrictive trade policy. The table below (Exhibit 1) summarizes binding constraints and the measures that could be undertaken to address them in a number of value selected chains.

54. Specific measures to be undertaken for each category of constraints to growth could be as follows:

[10] A jobs summit that took place in Abuja in August 2010 identified binding constraints to growth for each of the key value chains. How to alleviate these constraints has been agreed upon in a Memorandum of Understanding between the public and the private sector. These measures have subsequently been ratified by the government and are currently being implemented.

- *Physical infrastructure*

55. Construction of industrial parks with dedicated power supply and transportation. Construction of Independent Power Plants (IPPs) in geographical areas with high growth potential that already have a high concentration of promising value chains, possibly through the Bank of Industry in close collaboration with state governments.

- *Business environment*

56. Selective capacity-building in key government agencies, such as Standards Organization of Nigeria that enforce quality, and reform of business licensing as well as land transactions.

- *TVET*

57. Linking growth sectors to skills development through promotion of Innovation Enterprise Institutions (IEI)—an initiative promoted by the Nigeria Board of Technical Education; Developing a National Vocational Qualification framework (NBTE) and calibrating the National Youth Service to assign youth corpers to jobs matching their qualifications. Encouraging the development and adoption of training standards in traditional apprenticeships through trade associations.

- *Access to finance*

58. Mobilizing mortgage-based finance by enhancing the availability of mortgages through reform of the land allocation system. Introducing directed credit schemes at concessional interest rates.

- *Trade policy reform*

59. Import bans and high tariffs adversely affect competitiveness of a number of value chains. Replacing import bans that adversely affect certain sectors with the highest growth potential with tariffs could be very beneficial to the development of industries. Some protection may still be necessary for sectors with high growth potential that still need to develop.

Key constraints for each sector

60. One of the most important challenges for government and the private sector is to identify the most important constraint, which, if alleviated, is likely to allow for the sector to grow faster. The table below highlights various constraints for each value chain and how they could be addressed in each individual case. The section below discusses some of the findings from meetings with entrepreneurs in Lagos. Lack of electric power is a pervasive constraint in almost

every industry and is therefore not specifically mentioned. It is imperative for the Nigerian government to promote construction of IPPs in industrial zones as the main tool for addressing the high cost of power.

61. On a general note, entrepreneurs call for greater protection from imports through tariffs. In the past, Nigeria has consistently protected domestic industry through high tariffs or import bans. However, the desired improvement in domestic output has not materialized, as key constraints to greater productivity have remained unaddressed, in particular the lack of power. Against this background, it would be the preferable if continued protection was associated with a pre-commitment on the part of government to gradually phase out protection and address some of the key binding constraints in a comprehensive package of measures, e.g., the construction of Independent Power plants, the establishment of a fast-track window for imports of manufacturers and specific financial interventions to facilitate access to finance of key value chains. Import bans should be replaced by tariffs, given the fact that most import bans cannot be enforced and facilitate smuggling.

62. **Food processing** (including fruit juices, meat and poultry, noodles and spaghetti and tomato paste) has experienced strong growth in recent years and producers are confident about prospects for further growth. Tomato paste producers indicate that their growth potential would sharply improve, if domestic production of tomatoes could be scaled up. In addition, specific government incentives such as for Research and Development, the full operationalization of the Export Expansion Grant (EEG) and assistance in distributing seeds could allow production to further expand.

63. **Construction** has a very significant potential for job creation. The primary constraint for faster growth is the unavailability of mortgage financing. Specific interventions to improve the availability of such financing through reform of the land transaction process and the development of mortgage-related financial instruments would be critical to facilitate faster growth. In addition, the industry suffers from shortages of skilled technical labor. Targeted interventions to substantially upgrade the quality of vocational training would help youth unemployment and reduce the cost of construction firms.

64. **Motorcycle, tractor and TV assembly** are set for rapid expansion**.** Key constraints are the lack of adequate trade facilitation leading to delays in clearance of imports and the need for land to allow expansion of production and reap benefits from economies of scale.

65. **Computer assembly** is also growing rapidly. Partnership between the public and private sectors to help reduce the skills gap would be crucial to reduce cost. In addition, the government may facilitate the adoption of broadband internet access in universities and schools.

66. Following years of decline owing to lack of competitiveness with imports, the **tire industry** ceased production in 2008. Key constraints to greater productivity include (i) the need for natural gas to power an Independent Power Plant (IPP); (ii) the need to rehabilitate the Warri refinery to facilitate availability of black carbon—a key input for tire production; and (iii) the need for a bail-out fund to address the large amount of unserved debt. Gas had not been available owing to the turmoil in the Niger Delta, while the rehabilitation of the refinery had not proceeded on a timely basis. An injection of fresh capital from the government could be crucial to bailing out the industry, especially if packaged with other measures, in particular the rehabilitation of the Warri refinery and concessional loans (based on a performance agreement with the private contractor).

67. **The metal industry** has been suffering from power shortages and lower price competition from abroad. Nonetheless, some segments of the production, like cast irons and manganese steel, have been prospering, while others, such as aluminum, have been in decline. One of the key obstacles, in addition to the power supply, has been the customs administration which has been delaying the clearance of imported raw materials. However, the most important challenge in facilitating the growth of this industry is the lack of power.

Exhibit 1

Growth Inhibiting Cross-Cutting Constraints, Inventions and Expected Outcomes

Potential Sectors	Growth constraints	Intervention approach	Low Quality & Unproductive Labor Inputs	Finance	Distortionary Trade Policy	Lack of Regulatory Enforcement on Product Standards	Poor Environmental practices & enforcement	Unreliable & High Cost Infrastructure	Poor Logistics & Handling	Onerous Administrative Procedures	Technology and information asymmetries
Real Estate & Construction - rising demand and emerging middle class rovides significant upside potential	unreliable and high cost infrastructure services (power, water, transport); poor logistics & handling - under-developed freight transport services system	public-private partnerships and sectoral reforms in the power sector and other key infrastructure areas (tariff and regulatory reform)									
		Construction of Independent Power Plants in geographical areas with high growth potential that already have a high concentration of promising value chains						X	X		

	Distortionary trade policy accompanied by poor border controls - import bans on factor inputs; tariff and duties to protect domestic goods.	replace import bans on key inputs, such as rebar steel, with tariffs (15% tariff would maximize incentives for formalizing trade)			X							
		reform customs procedures, including through risk-based customs clearances										
	onerous administrative procedures - planning approvals & building permits; burdensome business regulatory compliance, including EEG	initiate administrative reform program to simplify individual procedures in relevant agencies to speed up the compliance/approva l process.										
		redesign or re-engineer procedures through careful process mapping and streamline legal basis as necessary									X	
		Provide strong technical assistance in the preparation/design stage followed by hands-on implementation with stakeholders.										
	Low quality and unproductive labor inputs: shortage of skilled labor, lack of vocational	explore possibility of using the Innovative Enterprise Institutions (IEI's)to deliver training programs	X									

	training, unskilled labor exhibits low productivity	develop new and strengthen existing vocational institutions to increase access to unskilled, informal labor sector including programs designed for practical teaching programs (e.g. Vocational Training Centre of Excellence in Lagos for the construction sector)									
	Lack of regulator Enforcement on Product Standards - SON, Local Town Planning Authority	Deliver capacity building program to strengthen inspection activities of relevant government authorities pertaining to quality and safety standards of products in the construction industry.					X				
	Inadequate development of the mortgage market	Facilitate development of mortgage-related financial services through reform of land transactions and development of the financial sector.		x							
	Poor environmental practices and enforcement - inadequate procedures for disposal of construction materials	provide technical assistance to the State Ministry of Environment to develop the appropriate level of resources and expertise, as well as the institutional authority to enforce environmental regulations under its statutory						X			

		responsibility									
Food processing - rising incomes have spurred demand for alcoholic and non-alcoholic beverages and for processed foods	raw material costs sources locally are high because of import bans, leading to high and uncompetitive prices of products, produced with imported raw material	replace import bans on key inputs with tariffs and reform customs procedures, including through risk-based customs clearances		X							
	coordination failures, weak linkages between processors and producers`	Industry associations to address information and knowledge transfers to SME processors									X
	onerous administrative procedures - land registration	Initiate administrative reform program to simplify individual procedures in relevant agencies to speed up compliance/approval process.									
		redesign or re-engineer procedures through careful process mapping and streamline legal basis as necessary								X	
		Provide strong technical assistance in the preparation/design stage followed by hands-on									

		implementation with stakeholders.										
	poor logistics & handling - poor rural roads to dispersed small scale farms; poor handling practices (no temperature control, improper bagging, storage etc.); under-developed freight transport services system; business environment (power, water, roads) is lacking: IPP and other dedicated infrastructure for industrial areas with high volumes of food processing	Deliver an integrated logistics program for the food sector from farm gate to the processing stage covering farm storage, drayage, wholesale markets, rural roads and line haul transport to the processor, complete with temperature control equipment as warranted.						X	X		
	Lack of skilled labor: support to the technical and vocational training system for food technology training; Low quality and unproductive labor inputs: shortage of skilled labor, lack of vocational training, unskilled labor exhibits low productivity.	Explore possibility of using the Innovative Enterprise Institutions (IEI's) to deliver training programs.	X									
		Develop new and strengthen existing vocational institutes to increase access to unskilled, informal labor sector including programs designed for practical teaching										

		programs (e.g. Vocational Training Centre of Excellence in Lagos for the construction sector); MAN and NASSI to provide outreach for private sector interventions.									
		Sponsor technical advisory trips to locations that incorporate religious and traditional practices of the domestic target groups - i.e. Islamic run abattoirs and butchers in Dubai, Malaysia, South Africa.									
	Lack of regulator Enforcement on Product Standards - SON; State Dept of Agriculture; Veterinary Services; Livestock & Poultry services; Agric Services, Pest control, produce inspection and fisheries; NAFDAC	Deliver capacity building program to strengthen inspection activities of relevant government authorities pertaining to quality and safety standards of products in the agriculture, animal livestock and food industries. In particular, harmonize roles of food inspection agencies for seamless cooperation (State Ministry of Agriculture, State Ministry of Health, and NAFDAC).					X				

	Poor environmental practices and enforcement - improper environmental control of animal waste at public abattoirs	Provide technical assistance to the State Ministry of Environment to develop the appropriate level of resources and expertise, as well as the institutional authority to enforce environmental regulations under its statutory responsibility.						X			
Meat & Poultry - urbanization, emerging middle class, and high income elasticity have created high demand for meat. Fast food industry very important as source of demand	abattoirs are dysfunctional	privatization of abattoirs					X				
	import bans are undermining competitiveness	removal of import ban on meat			X						
	public sector institutions are weak, especially for veterinary services and other support services	targeted capacity-building for key government institutions					X				
Aquaculture - growing steadily from a low base reflecting increased demand	information on technology options and prices	Support with technical training and establishment designs.			X						
	access to finance	Increase access to term lending for micro and small businesses.		X							

	input supply and business development services	Commercial stakeholders capacity to be developed through infrastructure, technology, information systems.			X						X
Leather - high quality products with potential for international marketability that needs upgrading	unreliable and high cost infrastructure services (power, water, transport); poor logistics & handling - poor rural roads to dispersed small scale farms;	Construction of Independent Power Plants in geographical areas with high growth potential that already have a high concentration of promising value chains						X	X		
	distortionary trade policy accompanied by poor border controls - import bans on factor inputs; tariff and dustiest to protect domestic goods; porous borders undermine trade policy	replace import bans with tariffs (15% tariff would maximize incentives for formalizing trade)			X						
		reform customs procedures, including through risk-based customs clearances									
	onerous administrative procedures - burdensome business regulatory compliance, including EEG	Initiate administrative reform program to simplify individual procedures in relevant agencies to speed up compliance/approval process.								X	
		Redesign or re-engineer procedures									

		through careful process mapping and streamline legal basis as necessary.										
		Provide strong technical assistance in the preparation/design stage followed by hands-on implementation with stakeholders.										
	Low quality and unproductive labor inputs: shortage of skilled labor, lack of vocational training, unskilled labor exhibits low productivity	Explore possibility of using the Innovative Enterprise Institutions (IEI's)to deliver training programs.	X									
		Develop new and strengthen existing vocational institutions to increase access to unskilled, informal labor sector including programs designed for practical teaching programs (e.g. Vocational Training Centre of Excellence in Lagos for the construction sector).										
		Sponsor technical advisory trips to locations that incorporate religious and traditional practices of the domestic target groups - i.e. Islamic										

		run abattoirs and butchers in Dubai, Malaysia, South Africa.									
	Poor environmental practices and enforcement - improper chemical disposal practices by leather tanneries (3 out of 6 have no chemical treatment facilities)	Provide technical assistance to the State Ministry of Environment to develop the appropriate level of resources and expertise, as well as the institutional authority to enforce environmental regulations under its statutory responsibility.					X				
	Lack of regulator Enforcement on Product Standards - Veterinary Services; Livestock & Poultry services	Deliver capacity building program to strengthen inspection activities of relevant government authorities pertaining to quality and safety standards of products in the agriculture and animal livestock industries.				X					
ICT - crucial role in increasing productivity for other sectors by reducing communications and transactions costs. Strong links with financial	policy & regulatory reforms: NCC issues new licenses for new operators to enter exceeding the capacity of the market. Spectrum management plan to be issued. Enforcement	Targeted capacity-building for communications regulator; new streamlined regulations.				X					

sector, large market attracts FDI. Recent increase in competition has led to productivity increases & product innovation. Opportunities for regional investment. Language skills allow for opening of call centers.	capacity lacking and ability to assess proper levels of service charges. Confusion over role of telecoms agencies										
	Market failures to access debt and equity financing	specific financing windows for the telecommunications sector		X							
	Skills shortages	targeted training	X								
Light manufacturing (metal, wood processing, furniture) - rising demand in construction increases demand for structural timber and steel products	high cost of raw materials (uncompetitive steel producers)	replace import bans with tariffs			X						
	Skills shortages	Targeted investment in vocational training, especially through IEI's.	X								
	Policy neglect at local government level results in low level of public sector investment	Power needs of clusters should be met more effectively through IPP's, dedicated water and roads supply.						X			
	unequal access to information especially for micro and small businesses	Industry associations should increase the flow of market intelligence to the industry; improve technology transfer mechanisms by sharing information									X

		on successful innovation.									
	Lack of access to finance	Increased access to term lending		X							
Tires	Access to finance Power and water infrastructure Lack of access to black carbon because refinery in Warri is dysfunctional	Consider establishment of a bail-out fund and of a credit line at concessional rates. Construction of an IPP Re-habilitate refinery in Warri									
Car parts, motor cycle assembly	Skills upgrade Power and water infrastructure Customs procedures	Reduce training costs Build IPP in industrial zone Reform fast-track manufacturing line.									
Pharmaceutical goods	Too small and fragmented to operate competitively	Encourage mergers and acquisitions									
Color TV receivers	Customs procedures Access to land	Activate fast-track lane for manufacturers. Facilitate acquiring of land so as									

V. How should governance issues be addressed in implementing these measures?

68. One of the most important criticisms against industrial policy is the potential for elite capture of the interventions in a way that could seriously undermine the effectiveness of any policy intervention. Nigeria has a poor track record in governance, traditionally ranking near the bottom of the global Corruption Perception Index. In this context, it is important to establish some principles that would allow proper management of governance-related issues in the implementation of these targeted policy measures. Based on experience in other countries, the following seem to be components that could help improve the governance aspect of these measures:

- Transparency and accountability is best ensured through a public process of agreement and follow-up on the implementation of the agreed measures. For example, as a first step a jobs summit could be held in which private and public sector representatives for key sectors meet, discuss and agree on critical interventions aimed at boosting growth in the individual sector, including selection criteria and appropriate implementation mechanisms. These Memoranda of Understanding could then be published and their implementation reviewed in public fora on a regular basis.

- The agreements should also explicitly specify the results that are to be expected. In addition, they should say that if the results are not achieved, the intervention should be retracted.

- A further measure helping to foster transparency and accountability is to limit the scale of the intervention. Smaller interventions stand a greater chance of transparency than large schemes. This is because the potential for elite capture is directly proportional to the magnitude of rents from government subsidies and other forms of protection and therefore smaller interventions stand a better chance.

- The selection of industries could be delegated to a consulting firm, rather than be handled by the government (as has been the case in Chile).

VI. Conclusions

69. This paper has aimed at identifying sectors with high growth and employment potential and targeted interventions to remove binding constraints to growth in each of these sectors. The paper concludes that a number of sectors, some of which are already active in Nigeria and some new to Nigeria, may hold significant potential for growth and employment creation and should be subject to detailed value chain analyses that would identify the type of interventions that would allow Nigeria to effectively compete with its competitors. Targeted interventions to promote growth should primarily focus on (i) providing physical infrastructure, especially power, water and sewerage; (ii) improving the business environment; (iii) developing targeted vocational and educational skills programs; (iv) improving the business and regulatory environment; (v) reforming trade policy; and (vi) providing some tax incentives, access to finance, and access to foreign exchange for the targeted sectors.

70. Of crucial importance in implementing these targeted interventions is to adopt in parallel a range of measures to support good governance as highlighted above. Provided such policies are undertaken in parallel, Nigeria should be in a good position to maintain its strong growth performance, as well as to increase the employment intensity of growth.

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